

IN THE ABSTRACT:

Delete the abstract now of record and insert
therefor the new abstract submitted herewith on a separate
sheet.

REMARKS

In the Office Action mailed May 5, 2006, the drawings were objected to because the specification described the same reference numerals as referring to different parts. To remedy this informality, the Examiner required submission of corrected drawings. The abstract was objected to as containing informalities, and appropriate correction was required.

Claim 1 was rejected under 35 U.S.C. §102(b) as being anticipated by any one of U.S. Patent No. 4,876,850 to Eickmann, U.S. Patent No. 4,553,513 to Miles et al. ("Miles"), Patent No. EP 1 106 785A1 to Song, Patent No. FR 2 539 184 and Patent No. JP 56-156402A to Kudo.

The Examiner acknowledged applicants' claim for foreign priority under 35 U.S.C. §119 and indicated receipt of the priority documents submitted by the International Bureau, thereby perfecting the foreign priority claim.

In accordance with this response, the specification has been revised in editorial respects and to avoid duplicate use of the same reference numerals to refer to different parts. Claim 1 has been replaced by new claims 39-45. A new abstract has been submitted to overcome the objections noted by the Examiner with respect to the original abstract.

Applicants appreciate the Examiner pointing out the duplicate use of certain reference numerals to refer to different parts. Upon careful review of the disclosure, it appears that the drawings are correct and that the duplicate use of reference numerals to denote different parts appears only in the specification. The drawing objections noted by the Examiner have been remedied in the following manner:

1. Page 4, line 30 of the specification has been amended to delete reference numeral 130 which, as shown in the drawings and described on page 7, line 21 properly refers to the oil cooling holes.
2. Page 7, line 8 of the specification has been amended to delete reference numeral 14 which, as shown in the drawings and described in the specification on page 7, line 22, properly refers to the sliding vane slots.
3. The specification has been amended on page 7, line 16 to delete reference numeral 86 which, as shown in the drawings and described in the specification on page 7, line 23 properly refers to the vane tips. The specification has also been amended on page 5, line 13 to refer to the ends or tips of the sliding vanes, which are different terms for the same part and thus both properly denoted by reference numeral 86.

4. The specification has been amended on page 9, line 4 to delete reference numeral 69 which, as shown in the drawings and described in the specification on page 6, line 6 properly refers to the cyclo-valve. More particularly, the cyclo-valve is made up of parts 69,70,71 and as described on page 9, line 21, the sealingly mounted slotted cylinder is designated by reference numeral 69.

5. The specification has been amended on page 9, line 24 to describe that the firing takes place in the chamber 91 and that new cycles are preceding in the chambers 92,107,108. As described, for example, on page 9, line 14, the combustion chamber is designated by the reference numeral 74 and 92.

In view of the foregoing amendments to the specification, the written description in the specification is consistent with the drawings, both of which consistently use a single reference numeral to refer to a single part. Therefore no corrected drawings are required, and the drawing objections noted by the Examiner have been obviated by appropriate amendment of the specification.

New claims 39-40 are directed to a method of operating a heat engine having a sliding vane rotary vane compressor and a sliding vane rotary vane turbine, and new claims 41-45 are directed to a compound propulsion engine. The totality of the prior art of record does not disclose, suggest or render obvious claims 39-45.

Eickmann discloses a combustion engine for burning solid block fuel and contains no disclosure of the method and compound propulsion engine defined in claims 39-45.

Miles discloses a thermodynamic rotary engine based on a constant pressure combustion Brayton cycle adapted for rotary type engines, and the reference does not disclose or suggest the method and compound propulsion engine defined in claims 39-45.

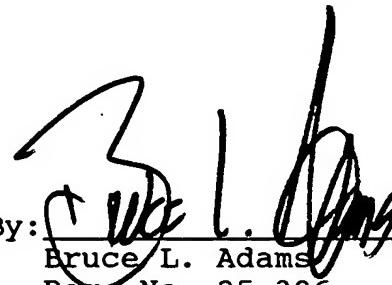
Song, Boudon and Kudo disclose rotary type engines, and the references are primarily concerned with the structure of the various engine mechanisms and do not contain any disclosure or suggestion of the method or compound propulsion engine set forth in claims 39-45.

The method of the present invention is characterized by a power expansion phase up to or near ambient temperature and a limited temperature constant volume combustion followed by a constant pressure combustion and/or a constant temperature combustion. None of the prior art references disclose a method of operating a heat engine that includes the steps of claims 39-40, nor do any of the references disclose a compound propulsion engine having a primary stage that includes an axial compressor and a sliding vane rotary vane turbine, and a secondary stage having an axial turbine and a sliding vane rotary vane compressor in the manner required by claims 41-45.

In light of the foregoing, the application is now believed to be in allowable form. Accordingly, favorable reconsideration and passage of the application to issue are respectfully requested.

Respectfully submitted,

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NOVEMBER 6, 2006
Date